

REMARKS/ARGUMENTS

Claims 10-17 and 23-30 are pending in this application. Claims 17 and 30 have been withdrawn from further consideration as being directed to a non-elected species. By this Amendment, Applicant amends Claims 10-13 and 23-26 and cancels Claims 18-22 and 31-35.

Claims 18-22 and 31-35 have been canceled because these claims are directed to non-elected species and are not dependent upon a generic claim. Claims 17 and 30 have not been canceled because Claims 17 and 30 are dependent upon generic Claims 10 and 23, respectively. Accordingly, Applicant respectfully requests that the Examiner rejoin and allow Claims 17 and 30 when generic Claims 10 and 23 are allowed.

Claims 10-15 and 23-28 were under 35 U.S.C. § 102(b) as being anticipated by Takehara et al. (U.S. 2003/0071350). Claims 16 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Takehara et al. Applicant respectfully traverses the prior art rejections of Claims 10-16 and 23-29.

Claim 10 has been amended to recite:

A ceramic multilayer substrate comprising:
a ceramic laminate including a plurality of ceramic layers, having a first main surface, and including internal circuit elements disposed inside of the laminate;
a resin layer having a bonding surface in contact with the first main surface of the ceramic laminate and a mounting surface opposite to the bonding surface;
external electrodes, each disposed on the mounting surface of the resin layer and electrically connected to at least one of the internal circuit elements of the ceramic laminate; and
a ground electrode disposed at an interface between the first main surface of the ceramic laminate and the bonding surface of the resin layer. (emphasis added)

Applicant's Claim 23 recites features that are similar to the features recited in Applicant's Claim 10, except that Claim 23 recites the feature of "a ground electrode disposed inside of the resin layer" instead of the feature of "a ground electrode

disposed at an interface between the first main surface of the ceramic laminate and the bonding surface of the resin layer” as recited in Applicant’s Claim 10.

With the unique combination and arrangement of features recited in Applicant’s Claims 10 and 23, including the feature of “a ground electrode disposed at an interface between the first main surface of the ceramic laminate and the bonding surface of the resin layer” as recited in Applicant’s Claim 10, or the feature of “a ground electrode disposed inside of the resin layer” as recited in Applicant’s Claim 23, Applicant has been able to provide a ceramic multilayer substrate having a ground electrode that is disposed at a location in extremely close proximity to a wiring substrate without causing a short circuit between the ground electrode and the wiring substrate even when the ceramic multilayer substrate is mounted on the surface of the wiring substrate and, in addition, problems, such as cracks, do not occur during the baking (see, for example, the paragraph bridging pages 3 and 4 of the Substitute Specification).

The Examiner alleged that Takehara et al. teaches all of the features recited in Applicant’s Claims 10 and 23.

Applicant’s Claim 10 has been amended to recite the feature of “a ground electrode disposed at an interface between the first main surface of the ceramic laminate and the bonding surface of the resin layer,” and Applicant’s Claim 23 has been amended to recite the feature of “a ground electrode disposed inside of the resin layer.” Support for these feature is found, for example, in the paragraph bridging pages 9 and 10 to the first full paragraph on page 10 and the last full paragraph on page 16 of the Substitute Specification; and in Figs. 1 and 2 of the originally filed drawings.

Applicant has also amended Claims 11-13 and 24-26 to be commensurate in scope with Claims 10 and 23, as amended.

The only ground electrode disclosed in Takehara et al. is element 14. As clearly seen in Fig. 4 of Takehara et al. the ground electrode 14 is disposed on an outside surface of the resin layer 10. Thus, Takehara et al. certainly fails to teach or suggest the feature of “a ground electrode disposed at an interface between the first main

surface of the ceramic laminate and the bonding surface of the resin layer" as recited in Applicant's Claim 10, and the feature of "a ground electrode disposed inside of the resin layer" as recited in Applicant's Claim 23.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claims 10 and 23 under 35 U.S.C. § 102(b) as being anticipated by Takehara et al.

In anticipation of the Examiner changing the rejection of Claims 10 and 23 to a rejection under 35 U.S.C. § 103(a) as being unpatentable over Takehara et al., Applicant respectfully submits that it would not have been obvious to modify the semiconductor device of Takehara et al. such that the ground electrode 14 would have been disposed at an interface between the first main surface of the ceramic laminate 2 and the bonding surface of the resin layer 10 as recited in Applicant's Claim 10, or disposed inside of the resin layer 10 as recited in Applicant's Claim 23.

Particularly, the ground electrode 14 of Takehara et al. is disclosed as providing the function of a heat-release electrode (see, for example, paragraph [0054] of Takehara et al.). If the ground electrode 14 of Takehara et al. would have been disposed at an interface between the first main surface of the ceramic laminate 2 and the bonding surface of the resin layer 10 as recited in Applicant's Claim 10, or disposed inside of the resin layer 10 as recited in Applicant's Claim 23, the ground electrode 14 of Takehara et al. would have been incapable of releasing heat generated by the semiconductor element 1a.

Thus, such as modification to Takehara et al. would not have been obvious because it would have made the ground electrode 14 of Takehara et al. unsatisfactory for its intended purpose.

The Examiner is reminded that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) and MPEP § 2143.01.

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Accordingly, Applicant respectfully submits that Takehara et al. fails to teach or suggest the unique combination and arrangement of features recited in Applicant's Claims 10 and 23.

In view of the foregoing amendments and remarks, Applicant respectfully submits that Claims 10 and 23 are allowable. Claims 11-16 and 24-29 depend upon Claims 10 and 23, and are therefore allowable for at least the reasons that Claims 10 and 23 are allowable. In addition, Applicant respectfully requests that the Examiner rejoin and allow non-elected Claims 17 and 30.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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